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FORM NO. DEC 1951 51-4B

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CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

[redacted]

COUNTRY Union of South Africa

SUBJECT Specification for Air Traffic Control Radio Telephone Communication System

REPORT NO. [redacted]

RESPONSIVE TO	
1	2
CD NO.	
OO/C NO.	Guide 131
ORR NO.	
DAS NO.	51-503
OCI NO.	
SCIA	SC-3000

PLACE ACQUIRED (BY SOURCE) -----

DATE ACQUIRED (BY SOURCE) 1952

DATE (OF INFO.) 1952

PROCESSED

DATE DISTR.

NO. OF PAGES 2

NO. OF ENCLS.

SUPP. TO REPORT NO.

THIS IS **UNEVALUATED** INFORMATION

SOURCE DOCUMENTARY

1. Available on loan from CIA Library is a document entitled Specification for Air Traffic Control Radio Telephone Communication System. It was published by the Aeradio Branch of the Division of Civil Aviation in the Department of Transport, Union of South Africa. The date of issue is given as 1952 and subsequent revisions have been noted on the document. 25X1A5a1 25X1A5a1 25X1A5a1

2. [redacted] Comment: [redacted] The details of this quotation were submitted as [redacted] It was subsequently learned that this firm was not the successful bidder. 25X1A2g

3. The "Introduction" to this document describes its content in general terms. It is quoted as follows:

"INTRODUCTION:

"This specification covers the ground equipment required to provide certain radio telephone communication channels in the Aeronautical Mobile service. The equipment will be installed at Controlled Aerodromes and later at en route stations in the Union of South Africa to provide the following Air Traffic Control communication channels:

(a) Aerodrome Control Channels on VHF and HF
(b) Approach Control Channels on VHF and HF
(c) Area Control Channels on VHF and HF
(d) En-route VHF Communication Channels at a later date.

"The component equipments are combined to constitute a system, the basic system comprising a dual-channel installation. The basic system can be expanded to provide up to 10 channels, ie five dual channel installations. The equipment on each channel will be duplicated.

"This specification follows a previous specification entitled 'Specification: Air Traffic Control VHF Radio Telephone Communication System' which was issued for information and comment in April 1950,

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"This specification is therefore an amended version of the previous specification, has been considerably simplified, and contains some of the suggestions contained in comments received on the previous specification, and has also been modified to allow for the use of HF as well as VHF channels, and for the use of up to five control consoles. Further, no recording equipment is required although provision is made for the connection of recorders to the system.

"This specification is set out in the following order:

(a) A general description of the system layout and Functional Requirements
(b) Specifications of particular equipments constituting the system
(c) Matters pertaining to the invitation of Tenders for the system
(d) Quantities required
(e) Maintenance Spares
(f) Schematic Diagrams of the proposed system."

4. Also available on loan from CIA Library are the following drawings prepared by the Aeradio Drawing Office of the Division of Civil Aviation which apply to the project outlined above:

(a) "Standard VHF Transmitter Building," floor plan and section, scale: 1/4 in = 1 ft (see page 1 of document).

(b) "Standard VHF Receiver Building," floor plan and section, scale: 1/4 in = 1 ft (see page 1).

(c) "Building Layout, Control Cable Runs, and Cable Connections" (see page 2).

(d) "Control Cable Distribution: VHF Receiver Station" (see pp 3 and 4).

(e) "Control Cable Distribution: VHF Transmitter Station" (see page 6).

(f) "Preliminary Console Details for Aerodrome Control Radio Telephone Communication at the Terminal Building" (see pages 7 and 12).

(g) "Control Cable Distribution: Equipment Room" (see page 8).

(h) "Microphone Amplifier Patching Panel Connections" (see page 9).

(i) "Equipment Room Dual-Channel Amplifier Rack" (see page 9).

(j) "Receiver Line Amplifier Patching Panel Connections" (see page 9).

(k) "Schematic Diagram: RT Control System" (see pp 9, 10, 12, 13, 14, 18 and 30).

(l) "Diagram Showing Mounting of Channel Selector Keys and Lights on 19 in Console RT Panel" (see page 13).

(m) "Two Channel VHF Receiver Rack" (see page 3).

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Subj: Air communication
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